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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,125	06/26/2006	Tetsuo Nishida	TAM-059	1186

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EXAMINER	
YOUNG, SHAWQUIA	
ART UNIT	PAPER NUMBER
1626	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/563,125	NISHIDA ET AL.	
	Examiner	Art Unit	
	SHAWQUIA YOUNG	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *126-169* is/are pending in the application.

4a) Of the above claim(s) *133-169* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *126-132* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/3/06 and 2/11/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 126-169 are currently pending in the instant application.

I. *Priority*

The instant application is a 371 of PCT/JP04/09623, filed on June 30, 2004 and claims benefit of Foreign Application JAPAN 2003-270225, filed on July 1, 2003.

II. *Information Disclosure Statement*

The information disclosure statements (IDS) submitted on January 3, 2006 and February 11, 2008 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements have been considered by the examiner.

III. *Restriction/Election*

A. Election: Applicant's Response

Applicants' election without traverse of Group I in the reply filed on September 29, 2008 is acknowledged.

Subject matter not encompassed by elected Group I are withdrawn from further consideration pursuant to 37 CFR 1.142 (b), as being drawn to nonelected inventions.

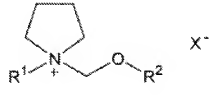
IV. Rejections

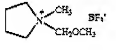
Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 126 and 127 are rejected under 35 U.S.C. 102(e) as being anticipated by *Kawasato, et al.* (US 20030202316). The instant invention claims a product with the formula  wherein $\mathbf{R^1}$ and $\mathbf{R^2}$ are each methyl or ethyl; $\mathbf{X^-}$ is BF_4^- or $N(CF_3SO_2)_2^-$.

The *Kawasato, et al.* reference teaches quaternary ammonium salts such as  (See formula 6, page 3) and the use of these salts as an electrolyte in an organic electrolytic solution. This species of compound anticipates the genus compound of the instant invention, wherein the genus structure and its definitions are stated above.

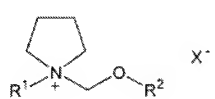
35 USC § 103 - OBVIOUSNESS REJECTION

The following is a quotation of 35 U.S.C. § 103(a) that forms the basis for all obviousness rejections set forth in this Office action:

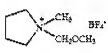
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Graham v. John Deere Co. set forth the factual inquiries necessary to determine obviousness under 35 U.S.C. §103(a). *See Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Specifically, the analysis must employ the following factual inquiries:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

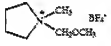
Claims 126-132 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kawasato, et al.* (US 20030202316) in view of *Matsumoto, et al.* The instant invention claims a product with the formula  wherein **R**^{1} and **R**^{2} are each methyl or ethyl; **X**$^-$ is BF_4^- or $N(CF_3SO_2)_2^-$.

The Scope and Content of the Prior Art (MPEP §2141.01)

The *Kawasato, et al.* reference teaches quaternary ammonium salts such as  (See formula 6, page 3) and the use of these salts as an electrolyte in an organic electrolytic solution.

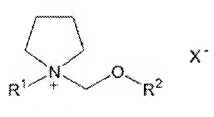
The secondary reference *Matsumoto, et al.* teaches various anion groups used in a quaternary ammonium cation. The anions used include $N(CF_3SO_2)_2^-$, BF_4^-, PF_6^-, etc. (See page 187)

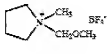
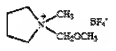
The Difference Between the Prior Art and the Claims (MPEP §2141.02)

The difference between the prior art of *Kawasato, et al.* and the instant invention is that there is homologous subject matter. Not all of the substituents are taught, however there is overlap between the substituents disclosed especially in view of the preferred embodiments taught by the prior art. The prior art teaches the specific compound  but does not teach that the methyl groups can be ethyl groups and does not teach the use of a $N(CF_3SO_2)_2^-$ anion in the quartenary ammonium salts.

The secondary prior art *Matsumoto, et al.* reference teaches the use of a $N(CF_3SO_2)_2^-$ anion in the quartenary ammonium salts.

Prima Facie Obviousness-The Rational and Motivation (MPEP §2142-2413)

Applicants are claiming a product with the formula  wherein $\mathbf{R^1}$ and $\mathbf{R^2}$ are each methyl or ethyl; $\mathbf{X^-}$ is BF_4^- or $N(CF_3SO_2)_2^-$. The prior art reference of *Kawasato, et al.* teaches a similar

compound  (See page 3,formula 6), The secondary prior art reference teaches the use of $N(CF_3SO_2)_2^-$ as an anion in quaternary ammonium salts. Therefore, it would have been obvious to combine the two prior art references and prepare the instant compounds wherein R^1 and R^2 are methyl and X^- is or $N(CF_3SO_2)_2^-$ since the prior art reference teaches this compound  which contains an anion which commonly used in an electrolyte and the secondary prior art reference teaches other possible anion groups such as $N(CF_3SO_2)_2^-$ which are commonly used in an electrolyte.

Applicants' instant compounds include that R^1 and R^2 can be ethyl and the prior art reference Kawasato, et al. teaches a similar compound wherein the groups equivalent to applicants' R^1 and R^2 are both methyl groups. It In re Hass, 141 F.2d 127, 60 USPQ 548 (CCPA 1944), it was well established that members of a homologous series must possess unexpected properties not possessed by the homologous compounds disclosed by the prior art. For example, it is obvious to prepare a quaternary ammonium salt wherein R^1 and/or R^2 are ethyl when the art teaches a similar compound wherein the groups equivalent to the instant compounds' R^1 and R^2 are methyl groups with a reasonable expectation of success. Specifically, methyl and ethyl are considered homologues and are obvious absent unexpected results. Therefore, it would have been prima facie obvious to one having ordinary skill in the art at the time the invention was made to prepare adjacent homologs based on the

teachings of the preferred embodiments in the prior art. A strong prima facie obviousness has been established.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ 2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 126-132 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 11/795,036 and claims 1 and 2 of copending Applicants No. 11/795, 030. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims 126-132 provide products which are obvious variants with the copending applications' claimed products and provide species in instant claim 127-132 which are obvious over the copending application's claimed invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

V. *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawquia Young whose telephone number is 571-272-9043. The examiner can normally be reached on 7:00 AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Shawquia Young/
Examiner, Art Unit 1626

/Rebecca L Anderson/
Primary Examiner, Art Unit 1626